

Brucellosis

What is brucellosis?

Brucellosis is a disease that can be spread from infected animals to humans. It is caused by bacteria called *Brucella*.

Who gets brucellosis?

In the U.S., brucellosis is uncommon but may occur in people who work in slaughterhouses or on farms. Veterinarians may also be at risk for this disease. About 100 cases of brucellosis are reported each year in the U.S. One to two cases of brucellosis are reported each year in Virginia, usually acquired from eating imported dairy products.

How is brucellosis spread?

People may get brucellosis by handling the tissues, blood, urine, vaginal discharges, aborted fetuses, or placentas of infected animals. Drinking raw milk and eating dairy products made from raw milk can also lead to brucellosis. Person-to-person spread of brucellosis is extremely rare but can occur through sexual contact with an infected person, through transplantation of infected tissues, or through an infected mother to her infant during breastfeeding.

Could *Brucella* be used for bioterrorism?

Brucella is one of the agents that could be used for bioterrorism because it would be relatively easy to distribute and could cause many people to become seriously ill or die. Release of *Brucella* as a bioterrorism agent would probably be in the form of an aerosol. The U.S. used *Brucella* when its biological weapons program was active, but the weapons were destroyed in 1969 when the program was stopped. Other countries are suspected to have weaponized *Brucella*.

What are the symptoms of brucellosis?

Brucellosis causes a flu-like illness with fever, chills, headache, body aches, and weakness. The fever may go up and down over a 24 hour period (another name for brucellosis is 'undulant fever'). Other symptoms may also occur, including weight loss, loss of appetite, vomiting and prolonged tiredness.

How soon after exposure do symptoms appear?

Symptoms usually appear 1 to 2 months after exposure, but the time period could range from 5 days to several months or longer.

How does the bacteria enter the human body?

Brucella can enter the body through the mouth, nose, eyes, and through cuts or breaks in the skin. Drinking milk that has not been pasteurized or eating dairy products made from raw milk (butter, whipped cream, soft cheeses) may also lead to infection.

How is brucellosis diagnosed and treated?

Early diagnosis and treatment is important. Blood tests are usually required to diagnose the disease. The healthcare provider should be told about any contact with animals or animal products that might be infected. Treatment usually consists of taking antibiotics for three weeks or longer. It is very important to take the medication for the whole time, even if the symptoms go away. Otherwise, you may experience a relapse that might be harder to treat.

How can brucellosis be prevented?

Anyone assisting at the birth of a calf or handling a newborn calf should wear disposable or rubber gloves and coveralls. Rubber gloves should be thoroughly disinfected and coveralls washed in hot soapy water. A disinfectant should be used in cleaning up after assisting a cow with delivery. Any aborted fetuses from a cow should be burned or buried. Make sure that any milk that you drink or milk products (e.g., butter, whipped cream, soft cheeses) that you eat are pasteurized.

Is there a vaccine for brucellosis?

There is no available vaccine for humans. A vaccine is used for cattle in areas heavily affected by brucellosis (this does not include Virginia).

Where can I get more information on brucellosis?

More information on brucellosis is available on the Virginia Department of Health website at www.vdh.virginia.gov or through your local health department. Information is also available through the Centers for Disease Control and Prevention (www.cdc.gov) and the U.S. Department of Agriculture (www.usda.gov).